PROVINCE OF SASKATCHEWAN

# 09-10

# ANNUAL REPORT

## MINISTRY OF ENERGY AND RESOURCES

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# Letter of Transmittal from the Minister

The Honourable Dr. Gordon L. Barnhart
Lieutenant Governor of Saskatchewan

May it please your Honour:

I respectfully submit the Annual Report of the Saskatchewan Ministry of Energy and Resources for the fiscal year ending March 31, 2010.

The Government of Saskatchewan is committed to delivering and building on its promises to Saskatchewan people. One of those promises is a commitment to increased transparency and accountability.

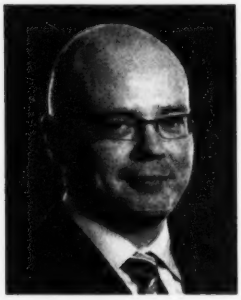
A significant number of commitments were made to Saskatchewan people by government. These include commitments made in the election platform, the fall 2009 Speech from the Throne, the Ministers' Mandate Letters, and the 2009-10 Budget Summary. The 2009-10 Annual Report demonstrates progress towards the commitments that relate to this ministry as of March 31, 2010.

Our government has defined its direction for ministries and has communicated this direction through a vision and goals released with the 2009-10 Budget. Ministries have aligned with this direction and have developed strategies and actions to help deliver on government's plan for Saskatchewan – to be strong and steady in the years to come.

The initiatives pursued in 2009-10, and the results achieved, are communicated to the legislature and to the Saskatchewan people through this report. The results provide a foundation for establishing priorities and influencing future activities. Therefore, the annual reports are not only an important accountability document, but they can help to inform future planning and resource allocation in the upcoming years.

Bill Boyd
Minister of Energy and Resources

# Letter of Transmittal from the Deputy Minister



The Honourable Bill Boyd
Minister of Energy and Resources

Dear Sir:

I have the honour of submitting the Annual Report of the Saskatchewan Ministry of Energy and Resources for the fiscal year ending March 31, 2010.

Responsibility for both the accuracy of the information and the completeness and fairness of the presentation, including all disclosures, rests with ministry management. To the best of our knowledge and belief, the enclosed information is accurate in all respects and is reported in a manner that presents fairly the status of the Ministry of Energy and Resources. As well, I accept responsibility for the financial administration and management control of the ministry.

Respectfully,

Kent Campbell
Deputy Minister
Energy and Resources

# Introduction

This annual report presents the Ministry of Energy and Resources' activities and results for the fiscal year ending March 31, 2010. It reports on public commitments made and other key accomplishments of the ministry.

Those public commitments include strategies, actions and performance measures identified in the Ministry Plan for 2009-10, a document released in March 2009. This annual report also demonstrates progress made on government commitments as stated in the *Government Direction for 2009-10*, the Minister's 2007 Mandate letter, throne speeches, and other government documents.

The 2009-10 Annual Report also sets the stage for future planning and budget process by providing an opportunity to assess accomplishments, results and lessons learned, and by identifying how to build on past successes for the benefit of Saskatchewan people.

## Alignment with Government's Direction

The ministry's activities in 2009-10 align with the government's vision and three goals.

## Our Government's Vision

A secure and prosperous Saskatchewan, leading the country in economic and population growth, while providing a high quality of life for all.

## Government's Goals

- Sustain economic growth for the benefit of Saskatchewan people, ensuring the economy is ready for growth and positioning Saskatchewan to meet the challenges of economic and population growth and development.
- Secure Saskatchewan as a safe place to live and raise a family where people are confident in their future, ensuring the people of Saskatchewan benefit from the growing economy.
- Keep the government's promises and fulfill the commitments of the election, operating with integrity and transparency, accountable to the people of Saskatchewan.

Together, all ministries and agencies support the achievement of the government's three goals, and work toward a secure and prosperous Saskatchewan.

# Ministry Overview

The Ministry of Energy and Resources has been mandated to deliver on a number of government commitments related to Saskatchewan's extensive energy, mineral and forestry resources.

The ministry works to achieve sustainable development of Saskatchewan's diverse energy, mineral and forestry resources, including oil and gas, potash and uranium. It has a regulatory role with industry and develops and administers various tax and royalty structures related to resources. It also has a major development and promotional thrust, with programs and policies that encourage exploration, research and value-added investment in resources and resource projects.

The development of Saskatchewan's resource sectors is the focus of the ministry's efforts and was managed in the following major areas within the ministry in 2009-10:

## Central Management and Services

- Includes executive management, central accommodation and administration, budget management, public affairs and information technology services.
- Provides for payments to the Ministry of Government Services for office accommodation, mail and photographic services, records management and minor renovation services.

## Forestry Development

- Facilitates the growth and development of the provincial forest industry.
- Works in partnership with business, communities, governments and other provincial agencies to develop and deliver policies and programs related to the forest industry and value-added production in the forest sector.

## Petroleum and Natural Gas

- Has responsibility for all areas related to provincial jurisdiction over oil and gas resources, including regulation, conservation, licensing, technical and environmental standards, public safety, data collection and distribution, Crown land sales, Crown royalties and freehold production taxes, and revenue and economic forecasts.

## Resource and Energy Policy

- Monitors economic and market trends, policies, legislation and impacts on industry performance, and provides analysis and recommendations on issues such as royalty/tax systems and climate change.

## Exploration and Geological Services

- Supports the exploration of petroleum resources and minerals in Saskatchewan. Exploration includes activity in the mineral or petroleum areas up until the point that production occurs.

## Revenue and Program Services

- Manages numerous financial and program delivery services, including non-renewable resource revenue audits, resource royalty assessment and collection, mineral right administration services, land policy development and implementation services, and program efficiency review activities.

The ministry utilized 262.1 full-time equivalent employee positions in 2009-10, a variance of 11.3 relative to the annual budget full-time equivalent count of 273.4. Overall, the ministry's full-time equivalent usage reflects approximately 2.2 per cent in planned restraint measures and two per cent in staffing turnovers.

The ministry has eight offices, three based in Regina, and one each in Estevan, Swift Current, Kindersley, Lloydminster and La Ronge. Please see the appendix for more information.

# Progress in 2009-10

The ministry's annual report for 2009-10 is organized around the strategies and key actions articulated in the ministry's plan for 2009-10 – strategies and actions that are in turn grouped around the three broad government goals outlined above and reiterated below.

## Government Goal – Economic Growth

The Ministry of Energy and Resources supports the government's goal of sustaining economic growth for the benefit of Saskatchewan people, ensuring the economy is ready for growth and positioning Saskatchewan to meet the challenges of economic and population growth and development.

### Strategy: Modernize energy and resource sector business and regulatory systems to take advantage of emerging technologies.

***KEY 2009-10 ACTIONS UNDER THIS STRATEGY:***

**Action: Complete the review and evaluation of current and future oil and gas business process needs and requirements of the ministry, and all of its clients and stakeholders.**

- In June 2009 ministry staff completed the identification and documentation of the ministry's current oil and gas related business processes and data sources. They documented approximately 135 business processes and sub-processes, along with approximately 150 data sources related to those business processes.

**Action: Initiate the design and development of new oil and gas systems solutions that will utilize recent advances in technology, maximize electronic data submission, increase operating efficiencies and meet all regulatory and stakeholder requirements.**

- The ministry has embarked on a major initiative to replace its aging well information, production and disposition, and billing systems with one integrated system. This initiative is known as the Process Renewal and Infrastructure Management Enhancements, or PRIME project. As part of that project, ministry staff completed a comprehensive review and assessment of the ministry's future business processes, information requirements and system functionality in May 2009. Coming out of this review were a high-level project plan for the duration of PRIME; a process/project building block diagram, and a summary of the systems and information requirements for the identified business processes.

- Energy and Resources and Justice staff conducted a review of *The Crown Minerals Act* to determine changes needed to accommodate new electronic, web-based mineral land tenure systems (e-tenure) for all commodities. Amendments were introduced in the fall 2009 sitting of the legislature. A new regulation was also proposed to house those aspects of e-tenure systems that are common to all commodities. *(Government Direction for 2009-10)*

**Action: Examine the potential for aligning the ministry's volumetric, well infrastructure, and facility infrastructure reporting solutions with those of other oil and gas producing jurisdictions.**

- A key component of the PRIME project is Saskatchewan's participation in the seven year-old Petroleum Registry of Alberta. The registry has proven effective in allowing industry to quickly record petroleum and natural gas volumetric and infrastructure data into a central database. This information can be used as an analytical tool by industry and government, and the information collected in turn helps government in administration of its royalty and tax regimes.

- Documents in support of Saskatchewan's business case to join the registry were reviewed and accepted in April 2009. The government signed a Memorandum of Understanding with the Alberta Department of Energy in July 2009.

**Action: Convert the mineral dispositions systems to the new web-based Mineral Acquisition Registry Saskatchewan (MARS) infrastructure.**

- The ministry signed a development contract on MARS with A.G. Research. The project is expected to be completed in May 2011.

- Implementation of MARS requires modification of *The Mineral Disposition Regulations, 1986* and *The Crown Minerals Act,* as MARS will become a platform for administering other dispositions. Amendments to the Regulations and Act were introduced in the fall 2009 sitting of the legislature. *(Government Direction for 2009-10)*

**Action: Advance the Orphan Well Program to best manage the environmental risk and liability associated with oil and gas wells and related facilities.**

- The Saskatchewan Orphan Well and Facility Liability Management Program has two key components: a licensee liability rating system and an annual orphan fund levy. Under the rating system, the fund collects security deposits from companies whose liabilities are greater than their assets. The amount of a security deposit is equal to the company's liabilities minus its assets. The security deposit serves two purposes: first, it prevents an individual who does not have sufficient economic means from acquiring oil and gas wells or facilities and prevents unscrupulous oil and gas companies from dumping depleted properties on unsuspecting individuals. Secondly, if a company goes bankrupt, the security deposit will cover the cost of decommissioning and reclaiming the orphan property. In a case where a security deposit is insufficient to cover the cost of the necessary work, all oil and gas companies operating in Saskatchewan will be levied fees (the orphan fund levy) to make up the shortfall.

- During the reporting period the ministry sent letters to all licensees specifying their security deposit amounts. The first 25 per cent of each licensee's calculated security deposit was due April 30, 2010, and the full deposit is due four years following the notification date, in 25 per cent instalments per year. Of the 488 licensees operating in the province, 199 were required to submit security deposits. The first instalment totals $11.1 million. An average security deposit amount submitted by a licensee will be $55,000. The highest instalment amount a single licensee can submit is $1.8 million and the lowest is $2,500. The total amount after all instalments will be $44.4 million.

- All licensees were invoiced for the 2009 orphan fund levy. Of the $1 million orphan fund levy billed to the licensees, the ministry has collected or waived 99.8 per cent of the dollars billed.

**Action: Expand the web-based mineral data storage and distribution system for mineral dispositioning to examine digital submission of well site survey plans, geological reports, and drill stem test reports.**

- Plans to implement digital submission of well-site survey plans, geological reports and drill stem test reports are advancing. Implementation is expected in 2010.

**Action: Consult with the oil and gas industry and other stakeholders on initiatives and policies and identify potential regulatory and administrative changes.**

- The ministry consulted with industry on proposed modifications to *The Coal Disposition Regulations, 1988* (permit length increased from one to three years; waiver of rent for the second and third years) and *The Mineral Disposition Regulations, 1986* (early implementation of new rules regarding the allocation of work expenditures and the grouping of dispositions).

- An amendment to *The Pipelines Act, 1998* expanding the definition of pipeline to include all carbon dioxide pipelines received royal assent on May 14, 2009.

- The ministry is consulting with industry on a proposed change to *The Petroleum and Natural Gas Regulations, 1969* that would provide petroleum and natural gas special exploratory permit owners with extension options similar to those available to those owning special exploratory permits for oil sands and oil shale. This proposal was in response to an industry request for extensions to these permits to accommodate exploration in areas prospective for shale gases.

- Changes to the potash production tax came into effect January 1, 2010 to ensure a level playing field for both existing potash producers and new companies entering the province's potash industry. The changes establish a tax base for new industry entrants as well as a tax floor for all potash producers. Additional incentives will also encourage the creation of more potash corporate office jobs in the province.

**Action: Ensure Saskatchewan is a member of North American and international energy and economic organizations. *(2007 Mandate Commitment)***

- Saskatchewan became a member of the Interstate Oil and Gas Compact Commission (IOGCC) in May 2008. IOGCC represents 38 American states, five provinces and one territory, and three other countries. Its broad purpose is to promote the conservation and efficient recovery of oil and gas, while protecting health, safety, and the environment. During the year, ministry staff attended meetings of the IOGCC to discuss unconventional resource development and regulatory strategies related to oil and gas development. Information was exchanged among regulatory agencies on best practices in carbon dioxide capture and sequestration, hydraulic fracturing methods, and efforts to reduce the flaring and venting of natural gas.

- Ministry officials also served on an interprovincial petroleum tenure committee which meets annually to discuss issues of common concern among Canadian jurisdictions over petroleum and natural gas and carbon storage issues.

- Through the Council of Energy and Mines Ministers, Saskatchewan continued work with its federal and provincial counterparts on better documenting the impacts of difficulties in the mining/exploration industries as a result of lower commodity prices and difficulties in the equity markets.

- The ministry and government continued to be active in both The Energy Council and The Pacific Northwest Economic Region. These memberships provide an opportunity for Saskatchewan to gain knowledge and understanding of North American energy and economic issues.

- Ministry staff met with potential investors in China and Japan on oil, gas and mineral investment opportunities to supplement the already intended investment of $145 million in mineral resources by Asian investors. Staff also participated in investment attraction missions to Asia and the United States to promote the province's natural resources and value-added opportunities.

- Ministry officials attended the Prospectors and Developers Association of Canada (PDAC) International Convention in Toronto, one of the most important international events in mineral exploration. The province's mining industry was well represented at PDAC, which attracted up to 20,000 delegates from around the world. PDAC is an ideal venue to showcase the province's resource potential to industry players from around the globe.

- The ministry hosted the Saskatchewan Geological Survey Open House in late November and established business relations with representatives from Asia, South America and the United States.

**Action: Prepare a report and recommendations on how to reduce emissions from flaring, venting, and fugitive emissions and begin implementing measures to conserve the gas in consultation with the industry.**

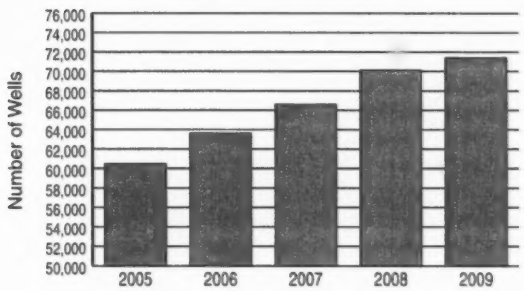
- The ministry and industry representatives worked on draft standards to promote the conservation of natural gas associated with

oil production. Draft versions of the directives were expected to be made available for public consultation in the summer of 2010. The standards are the recommended approach to reduce emissions from flaring, venting and fugitive emissions.

- The ministry purchased new lenses for its four FLIR ThermaCAM cameras. The lenses allow the ministry more flexibility in using the cameras to better assist the industry in detecting fugitive emissions.

## Measurement Results:

**Total Capable Oil and Gas Wells**

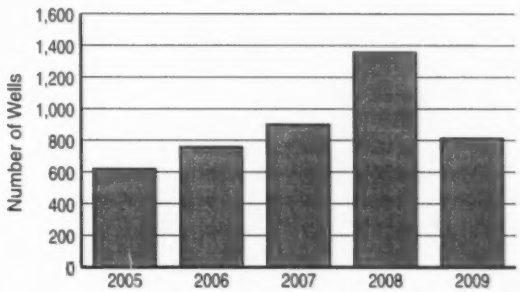



From 2000 to 2009, the number of oil and gas wells capable of production in the province increased by almost 65 per cent to over 71,000. This measure is an indicator of the level of regulatory and administrative processes and services required to carry out the ministry's mandate of providing sound management of the province's oil and gas resources. Saskatchewan is the second-largest oil producer in Canada (after Alberta) and the third-largest producer of natural gas (after British Columbia and Alberta).

The ministry closely monitors oil and gas well activity from a regulatory (operational safety and reservoir management) and revenue perspective (royalties and taxation). The number of capable oil and gas wells provides an indication of the total amount of information that must be maintained about each well. Information maintained includes well records, drilling information, well status, ownership, completion information, core analyses, pressure and fluid analyses, drill stem tests, logging surveys, casing details, geologic formation tops, and oil, gas and water production levels for each well drilled under *The Oil and Gas Conservation Regulations, 1985*.

By monitoring the number of capable wells in Saskatchewan, the ministry is able to gauge ongoing industry activity, forecast investment, employment, production, and provincial revenues, and plan the human and financial resources the ministry will need to regulate the industry and collect royalties and production taxes. *(Source: Ministry of Energy and Resources)*

**Horizontal Oil Well Drilling**




The level of horizontal drilling in the province is an indication of the effectiveness of Saskatchewan's regulatory and fiscal provisions and the application of new and improved technologies. It also provides an important measure of the level of investment and drilling activity. One horizontal well often requires the same amount of metres drilled as two or three vertical wells. As a result, a decline in the total number of wells drilled does not necessarily mean a decline in the total number of metres drilled.

Depressed crude oil and natural gas prices in the latter half of 2008, and continuing into 2009, resulted in a reduction in overall drilling levels in 2009. Although the number of horizontal wells drilled in Saskatchewan in 2009 decreased from the record level established in 2008, it still represented the third-highest number of horizontal wells drilled in Saskatchewan's history. Horizontal well drilling, as a percentage of total oil and gas wells drilled, continues to increase and has become an accepted or standard practice in many reservoirs and parts of the province.

Saskatchewan has vast crude oil resources and the application of new and improved technologies is crucial to increasing the amount of crude oil that can be recovered from existing oil pools and to identifying potential new crude oil resources. Horizontal drilling is one of those technologies that can increase the amount of recoverable crude oil reserves. Although horizontal drilling technology has been used for more than 20 years, continuing refinements and improvements in drilling and completion technologies have resulted in more economic, precise and successful horizontal drilling and production operations. The application of the technology, including improved hydraulic fracturing technologies, has enabled the successful development of the geologically-complex Bakken Formation in southeast Saskatchewan, and has shown similar promise in the Lower Shaunavon Formation in southwest Saskatchewan and the Viking Formation in west central Saskatchewan. *(Source: Ministry of Energy and Resources)*

### Strategy: Advance innovation and research in the energy and resource sectors.

***KEY 2009-10 ACTIONS UNDER THIS STRATEGY:***

**Action: Work with post secondary institutions and industry to establish mechanisms and agreements to increase Saskatchewan's research capacity in uranium and energy resources. *(Throne Speech; 2007 Mandate Commitment)***

- The ministry awarded four $15,000 grants to the University of Saskatchewan and the University of Regina to support graduate geoscience research projects that are likely to benefit the province's petroleum and/or potash industries. The ministry also provided a grant of $20,000 to the University of New Brunswick to support a thesis research project on the uranium deposits in the Uranium City area.

- The government outlined its strategic direction for uranium development in Saskatchewan on December 17, 2009, responding to both the Uranium Development Partnership report and the follow-up Future of Uranium in Saskatchewan public consultation process. The strategic direction includes actively supporting uranium exploration and mining, and encouraging investment in value-added nuclear research, education and training opportunities.

- The ministry continued to support ongoing research projects related to $CO_2$ enhanced oil recovery and climate change through its carbon dioxide capture and storage (EOR) initiative (see reference below).

- Ministry staff researched and analyzed the geological and market potential of commodities such as rare earth elements, natural gas from coal, platinum group metals, chemical elements from brines and base metal mineralization beneath the sub Phanerozoic cover southwest of Flin Flon. The ministry also did general research on the nature of uranium deposits as a result of a Memorandum of Understanding signed with the State of South Australia.

- The ministry continued to update its geological information, implementing a process of maintaining "living maps" that complement the Geological Atlas of Saskatchewan and which are updated whenever new information becomes available.

- The ministry updated and enhanced digital versions of its Geology, and Mineral and Petroleum Resources of Saskatchewan and Gold in Saskatchewan reports with the intent to continuously update these reports as new information becomes available.

**Action: Administer the Green Initiatives – Energy program and energy sector initiatives: *(Throne Speech)***

- As noted above, the ministry continued to support ongoing research projects related to $CO_2$ enhanced oil recovery and climate change.

    - The ministry's carbon dioxide capture and storage (EOR) initiative helps industry assess the technical and economic feasibility of using carbon dioxide to enhance oil recovery from reservoirs in southeast Saskatchewan. Officials continued meeting with SaskPower to review the status of its discussions with companies that may be interested in

purchasing carbon dioxide from the utility's Boundary Dam #3 project, and to determine if these companies wish to evaluate the effect that carbon dioxide would have on production from their reservoirs. Ministry staff will examine opportunities to use carbon dioxide to enhance oil production from the Bakken Formation.

- The ministry contracted the Petroleum Technology Research Centre (PTRC) to undertake the Saskatchewan Phanerozoic Fluids and Petroleum Systems Assessment project. This five-year project is scheduled to be completed in 2013. Phanerozoic fluids are fluids generated during the geological time period when plant and animal life started to flourish on the planet – and when the source of today's oil was created from the plant life of that time. By determining where these fluids migrated, researchers may better ascertain where oil has been trapped.

- Two tentative locations for a $CO_2$ sequestration project on the north edge of Regina were selected and the corresponding Crown minerals were removed from disposition. The PTRC and its industry partners are finalizing the selection of a single site for an injection well.

Green Initiatives:

- The ministry provided $250,000 to the International Test Centre for $CO_2$ Capture at the University of Regina for research into methods to economically capture $CO_2$ from flue gas at industrial sites. The ministry also provided $200,000 to the PTRC for its phanerozoic fluids assessment (see above).

Energy Sector Initiatives:

- The ministry provided $125,000 to the Prairie Adaptation Research Collaborative (PARC) to assist its ongoing efforts in assessing the potential effects of climate change on the prairies, and developing adaptation strategies for sectors such as agriculture and forestry.

- The ministry also participated in initiatives related to improving energy production and reducing greenhouse gas emissions. These were undertaken through the Petroleum Technology Alliance Canada; IOGCC; Western Interstate Energy Board; International Energy Agency Greenhouse Gas Programme; and the In Situ Clean Bitumen Technology Action Plan.

- The ministry participated in Technology for Emission Reduction and Eco-Efficiency (TEREE), a consortium of industry, provincial, and federal governments involved in finding and implementing new technologies and operational methods of reducing pollutants in the upstream oil and gas industry.

- The above-referenced PTRC, a world leader in research and development in $CO_2$ capture and sequestration and enhanced oil recovery, continued to receive operating funding from the ministry – an annual total of $2.5 million. This funding comes under the ministry's green initiatives and energy sector initiatives as well as from a separate PTRC allocation. Funding supports the organization's operating expenses as well as contributing, along with industry, to research undertaken primarily at the Saskatchewan Research Council and the University of Regina. The ministry is represented on the PTRC Board of Directors as well as on several of its technical and steering committees that oversee the IEA GHG Weyburn-Midale $CO_2$ Monitoring and Storage project, the Joint Implementation of Vapour Extraction (JIVE) project, and the Sustainable Technologies for Energy Production Systems (STEPS) project. *(Government Direction for 2009-10)*

**Action: Research the development of non-conventional energy resources in the province, including natural gas from coal, oil sands, shale gas, and oil shale.**

- The ministry is undertaking oil sands research, with one staff member focusing on this as part of a graduate program at the University of Regina. Other in-house research is focused on coal, shale gas, and oil shale, with another geologist doing graduate work on the coal geology near Hudson Bay.

- During the course of the year staff met with industry and other regulatory agencies on proposals and applications related to oil sands exploration and development.

**Action: Continue to administer the Mineral Exploration Tax Credit to encourage investment in exploration and long-term sustainable development of mineral resources.**

- The Saskatchewan Mineral Exploration Tax Credit program was reintroduced in November 2008 (retroactive to April 1, 2008) to encourage long-term sustainable development of Saskatchewan's mineral resources and to enhance Saskatchewan's competitiveness in mineral exploration. The tax credit has been well subscribed, and the ministry followed through with additional incentives in May 2009 to further encourage mineral exploration. These changes included allowing companies to double count the value of exploration expenses incurred between March 2009 and March 2011, thus enabling them to hold their dispositions while encouraging continued investment in mineral exploration. The ministry also provided more flexibility for companies to allocate exploration expenditures among a number of commonly-held mineral dispositions.

- The ministry's 40th annual Geological Survey Open House in November 2009 showcased results of the province's mineral geosciences program and provided a forum for presentations by industry on its Saskatchewan mining and mineral exploration projects. The Open House draws attention each year from mining exploration companies and geologists and is considered a top conference for mineral geoscience.

- A five-year Corporate Income Tax incentive for corporations that process minerals imported into the province was introduced to stimulate economic activity by encouraging new and existing firms to establish processing facilities in the province. This incentive will mean beneficial short-term economic activity and significant long-term gain.

**Action: Enhance the value-added potential of Saskatchewan's natural resources.** ***(2007 Mandate Commitment)***

- The province's royalty/tax regime and mineral tenure system are monitored to ensure the province remains competitive with other jurisdictions seeking to stimulate further mineral, oil, and gas development. Officials analyzed the competitiveness of the Saskatchewan oil and gas royalty/tax regimes in light of several changes to oil and gas related royalty/tax structures and incentive systems announced by Alberta.

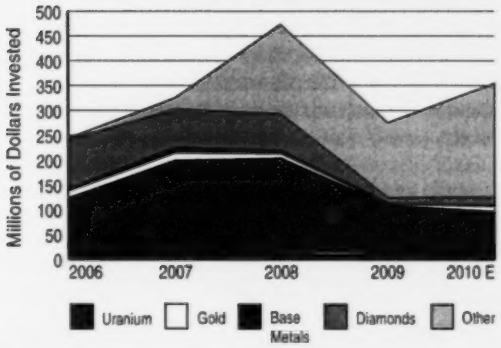
- Exploration spending for Saskatchewan minerals grew from $31 million in 2003 to $474 million in 2008, but the worldwide economic slowdown resulted in lower mineral exploration spending of $293 million in 2009. Saskatchewan continues to be an attractive jurisdiction for mineral exploration, with some of the largest and richest uranium deposits in the world and more than 20 per cent of uranium production, with one-third of world potash production, and with the world's largest kimberlite field in the Fort a la Corne area. Exploration spending on diamonds was an estimated $13.9 million in 2009.

- The ministry reached a settlement and release agreement with Natural Resources Canada related to the ownership of Soldier Settlement Board minerals. The agreement removes the uncertainty over ownership of federally-owned minerals in the province and will provide future revenues for the province as the minerals are developed.

- After a record-breaking year in 2008, revenues from the sale of Crown petroleum and natural gas rights declined in 2009 as a result of the global economic downturn and more volatility in oil prices during the latter part of 2008 and into 2009. Industry interest and activity picked up in the second half of 2009, with revenue from land sales totalling $151.4 million for the 2009-10 fiscal year. The last land sale of the fiscal year in February 2010 brought in $39.5 million in revenue for the province.

## Measurement Results:

**Mineral Exploration in Saskatchewan**

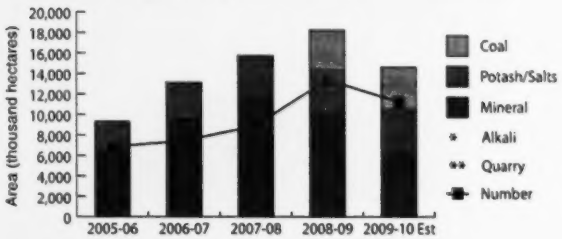



Saskatchewan's large and diverse mineral sector has three components: mineral exploration, mining, and value-added activities. It is one of the most technologically advanced industries in the province. Mineral exploration is crucial to sustaining and growing the sector. Due to natural resource depletion, new mineral deposits must continually be explored for and discovered, not only to enable existing mining operations to continue to operate, but also to enable the expansion and growth of the sector through the development of new mining operations. Ongoing exploration also leads to the discovery of new commodities for development, broadening and diversifying the overall mineral sector. The exploration industry includes a variety of players, ranging from prospectors to junior exploration companies to senior, international corporations.

This measure tracks mineral exploration for select commodities ("Others", above, includes commodities such as coal, rare earth minerals and potash. While potash is the predominant mineral in the category, the ministry must maintain confidentiality about data that could reveal company-specific activities). The relatively high levels of mineral exploration present a variety of opportunities for direct employment and business development. The measure indicates demand for Saskatchewan mineral resources and identifies possible future developments, including the attractiveness of the resources to Asian investors.

Exploration levels remained fairly strong in 2009 despite world market uncertainties and assisted modestly by the re-introduction of the Mineral Exploration Tax Credit. As noted above, in May 2009 the ministry introduced changes which benefited the industry by sustaining exploration activity during the economic downturn. The ministry continues to monitor the impact of the global economic downturn on the availability of credit and is especially monitoring the effects of recession on smaller exploration companies. *(Source: Ministry of Energy and Resources)*

**Crown Metallic and Industrial Minerals Dispositions**




* Alkali: 05-06 = 12, 06-07 = 12, 07-08 = 12, 08-09 = 12, 09-10 = 12
** Quarry: 05-06 = 11, 06-07 = 16, 07-08 = 40, 08-09 = 40, 09-10 = 60

This measure indicates how well the ministry copes with the challenges of managing the province's vast mineral resources to minimize delays in approvals of new claims, permits and leases, as well as register ownership transfers to provide important service to industry. The chart above displays activity by major mineral category ("mineral" includes uranium, gold, diamonds and platinum group minerals). In 2008 and 2009, discoveries of coal greatly increased the volume of dispositions processed by the ministry. Industry must continue to explore such deposits and determine whether development of mining or other processing options is viable. Increases in the total area of Crown-owned mineral lands being leased and permitted for mineral exploration is an indication of how growth in mineral exploration and development activity relates to interest in specific commodities. Such activity contributes to increased likelihood of discovery of economically recoverable deposits of minerals.

As shown above, rapid and significant shifts in the area taken up by mineral dispositions for specific commodities are an indication of the attractiveness of Saskatchewan's resources. In 2008, interest in coal grew greatly while potash interest grew modestly and the area for uranium, diamonds and other precious metals or rare earths fell back. Dispositions for these resources generally occur in the northern part of Saskatchewan, and as such, land ownership matters affecting dispositions are relatively less complicated.

The mineral sector is vital to Saskatchewan's economy, contributing over $200 million each year in Crown revenues used to support important social programs. Mining supports 20,000 jobs, including almost 2,000 direct jobs in northern Saskatchewan and contributes over $2 billion annually to the economy in wages, goods and services.

The ministry will complete improved methods of electronically mapping mineral ownership in the province. These improvements, which are related to the earlier mentioned MARS project, will over time provide clarity and certainty to government and industry on a variety of legal interests affecting Crown mineral lands. *(Source: Ministry of Energy and Resources)*

### Strategy: Support the restructuring of the province's forest industry.

***KEY 2009-10 ACTIONS UNDER THIS STRATEGY:***

**Action: Complete a provincial forest development strategy to aid in the successful transition of Saskatchewan's forest industry to new value-added products and identify new market opportunities. *(2007 Mandate Commitment)***

- The ministry released a new provincial Forest Development Framework in May 2009. The framework sets the stage for the forest industry to diversify into more market-driven, value-added production, and it helps target those areas where government can have a positive impact on sector development. Areas of focus during the 2009-10 fiscal year included the continued adjustment of available wood supply to support existing industries and growth in value-added production; research on energy from forest biomass and work on a forest biomass action plan; research into commodity transportation and mill process efficiency improvements; a review of market-based timber allocation systems that support forest products innovations; and an examination of the potential for increased market-driven diversification within Saskatchewan's independent forest operations.

- The ministry continued to investigate and inform on co-generation, district heating and biofuel technologies, and projects related to wood waste utilization. Information sharing and networking with other provinces, countries and bioenergy companies has been an essential part of understanding how bioenergy development will benefit the province's economy.

**Action: Engage research and development organizations in a forest sector market analysis and value-added research program for new products and forest-derived energy. *(2007 Mandate Commitment; Throne Speech)***

- The ministry is working with research and development organizations, including FPInnovations and the Saskatchewan Research Council (SRC), on forest sector market analysis and value-added research initiatives to develop new products and forest-derived energy.

- FPInnovations has a $4.14 million contract with the ministry to undertake various research initiatives. These include an update of wood market statistics for Saskatchewan and calibration of FPInnovations' biomass inventory model to enable government and existing and potential forest companies to estimate biomass supply, plus the cost of delivering biomass to potential energy and other value-added production facilities. The Prairie Provinces Bio Energy Conference, held during the fiscal year, drew more than 100 participants to share new technology and research findings, and company specific value-added optimization projects.

- The ministry's $1.7 million contract with SRC is in its early stages and focuses on pilot projects related to bioenergy utilization in Northern Saskatchewan communities. *(Government Direction for 2009-10)*

**Action: Develop plans for resolving recommendations from the Forest Sector Team to improve industry competitiveness. *(2007 Mandate Commitment)***

- Recommendations from the Forest Sector Team of Enterprise Saskatchewan regarding the fuel tax rebate have been broadened to be resource sector-wide in scope (forestry, mining, and oil and gas). The team recommended a resource sector-wide fuel rebate on off-road activities.

- The ministry continued to work with other provincial agencies and industry stakeholders to ensure the requirements of the forestry industry are factored into infrastructure planning.

**Action: Engage forestry stakeholders in the development of new business models and opportunities associated with the Prince Albert Forest Management Agreement.**

- In November 2009 the government announced that more than two million cubic metres of wood volume will be reallocated from the Prince Albert Forest Management Agreement (PAFMA) to a group of 10 northern forest companies and First Nations. This mix of existing operators and First Nations will receive the wood allocations from the forest management agreement once consultations are concluded with area First Nations around any potential impacts on treaty rights. Another 200,000 cubic metres of softwood are being reserved for 18 months for consideration of new proposals by companies and forest communities. As well, 661,000 cubic metres of pulpwood for Domtar has been set aside for Domtar while discussions continue with the company on the future of the Prince Albert Pulp Mill.

- Forestry stakeholders, including existing Saskatchewan-based forest companies and First Nations, are partnering in the development of new business models and opportunities associated with the assignment of the PAFMA. The PAFMA partnership group agreed to establish a new company to take on assignment of the PAFMA and developed a draft shareholder agreement. Assignment, through a working shareholder agreement, is expected to be completed in the second quarter of the 2010-11 fiscal year.

- C&C Wood Products, headquartered in Quesnel, British Columbia, purchased the Carrot River Sawmill and Hudson Bay Plywood Mill from Weyerhaeuser during the fiscal year. The Pasquia-Porcupine Forest Management Agreement is now a co-operative arrangement between C&C Wood Products (operating in Saskatchewan as Edgewood Forest Products Inc.) and Weyerhaeuser. Under the new assignment, Weyerhaeuser will continue to use hardwood for its oriented strand board (OSB) mill at Hudson Bay while Edgewood Forest Products will have the softwood allocation for the plywood mill and sawmill.

- The ministry provided the Big River and Area Forestry Committee $150,000 in research monies from the Community Development Trust Fund to look at new economic development opportunities in light of challenges facing the province's forestry industry. The funding will allow the committee to undertake value-added forestry research as well as an industrial business opportunity review.

**Action: Provide a defined accounting of allowable sustainable cut. *(2007 Mandate Commitment)***

- The percentage of the annual allowable cut harvested reflects the effectiveness of the balance between environmental protection and economic development. The annual allowable cut is determined from the overall forest inventory by using a variety of environmental factors to ensure long-term forest sustainability. A third-party expert assessed up-to-date inventories prepared by industry for all forest management agreement areas; and that analysis confirmed the current allowable cut levels on each forest management agreement area are appropriate and sustainable. The government also undertook a more defined accounting of the total provincial allowable sustainable cut, with the ministry ensuring that this accounting of the provincial inventory would address total sustainable forest harvesting levels, the place of Saskatchewan's forest industry in the world forestry market, and the best opportunities for future Saskatchewan forest sector development.

## Government Goal – Security

The Ministry of Energy and Resources supports the government's goal to secure Saskatchewan as a safe place to live and raise a family where people are confident in their future, ensuring the people of Saskatchewan benefit from the growing economy.

### Strategy: Ensure the sustainable development of conventional oil and oil sands resources.

***KEY 2009-10 ACTIONS UNDER THIS STRATEGY:***

**Action: Promote the responsible, efficient and safe development and conservation of oil and gas resources using modern and effective regulatory processes to optimize the benefits of the resources while protecting the environment and the public.** ***(2007 Mandate Commitment)***

- The ministry is involved in research to evaluate the province's subsurface for its capacity to safely store $CO_2$ for long-time periods. This work includes helping the PTRC develop a best practices manual for secure geological storage of $CO_2$, creating Canadian and North American carbon atlases, and providing scientific knowledge and expertise as the ministry considers regulatory requirements relating to geological storage of $CO_2$.

- Staff continued to maintain established regulatory approval and compliance processes, including field inspections, in accordance with the provisions of *The Oil and Gas Conservation Act* and *The Pipelines Act, 1998.*

- The Saskatchewan Upstream Oil and Gas Industry Flaring and Venting Reduction Committee developed recommendations to improve the industry's efficiency and competitiveness, and to reduce emissions from flaring and venting and fugitive emissions. Energy and Resources continues to be represented on the Canadian Flaring and Venting Reduction Committee which is developing a national strategy to reduce flaring and venting of associated gas so that gas may be gathered for sale.

**Action: Promote energy resource production through new technology development.**

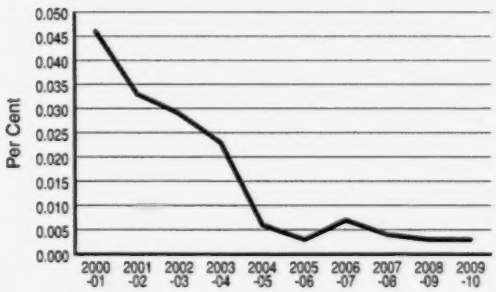
- In July 2009 the ministry gave approval to Petrobank Energy Ltd. to use its toe to heel air injection (THAI™) enhanced oil recovery process in the Kerrobert Mannville Sand Pool. This in situ combustion technology integrates existing proven technology in the recovery of bitumen and heavy oil and is expected to provide a significant advancement in the development of Saskatchewan's heavy oil resource. The ministry supported the development of this technique through the Saskatchewan Petroleum Research Incentive (SPRI). This project is expected to cost in excess of $10 million and by taking advantage of the SPRI program, Petrobank will be able to claim $3 million in royalty credits.

**Action: Manage energy sector initiative investment programs such as the Saskatchewan Petroleum Research Incentive (SPRI) to share the technical risk of introducing new technologies to oil and gas development.**

- The ministry continued to receive and process projects and post reports from completed projects on its website. In the 2009-10 fiscal year, it processed four successful applications for $9.1 million in royalty credits contingent upon over $30 million in industry expenditures to conduct these projects.

**Measurement Results:**

**Uncollectible Resource Revenues**



The term "uncollectible revenues" refers to the amounts of non-renewable resource revenues that are written off as bad debts and are expressed as a percentage of revenues recorded. This measure reflects the ministry's ability to properly ensure all resource revenues owed to the province are collected.

The ministry takes action to achieve an acceptable level of assurance that all royalties, taxes, and fees to which the province is entitled are properly determined and reflected in the ministry's accounting records, and that the amounts owing are paid. In order to achieve an acceptable level of assurance, the ministry evaluates potential risks, establishes auditing and monitoring processes and procedures, and uses human and technical resources to mitigate those risks. The ministry assesses the adequacy of these processes and resources on an ongoing basis, and enhances them as deemed necessary.

Inherent in this measure is a reflection of the financial stability of resource companies carrying on business in Saskatchewan. The lower the percentage of uncollectible revenues, the more stable the private sector companies remitting payments to the province. *(Source: Ministry of Energy and Resources)*

## Government Goal – Promises

The Ministry of Energy and Resources supports the government's goal of keeping its promises and fulfilling the commitments of the election, operating with integrity and transparency, accountable to the people of Saskatchewan.

### Strategy: Advance Aboriginal involvement in resource development.

***KEY 2009-10 ACTIONS UNDER THIS STRATEGY:***

**Action: Create a stronger linkage between resource companies and the Aboriginal work force by participating in information sessions, meeting with Aboriginal groups, and explaining the regulatory and policy framework for mineral development in the province.**

- The ministry discussed the crown mineral disposition process with an assembly of Chiefs, as part of a Federation of Saskatchewan Indian Nations (FSIN) information session.

**Action: Consult and facilitate partnerships with industry and First Nations on forest industry projects. *(2007 Mandate Commitment)***

- During the reporting period, the ministry conducted interest-based consultation with industry and First Nations, focusing on the Prince Albert Forest Management Agreement (PAFMA). The Agency Chiefs Tribal Council, Montreal Lake Cree Nation, La Ronge Indian Band, and Peter Ballantyne Cree Nation are actively engaged in the assignment process for the PAFMA. The Agency Chiefs Tribal Council and the Montreal Lake Cree Nation are shareholders in the new company which will take on the assignment of the PAFMA.

- The ministry continued to increase First Nations involvement in the forest industry by actively working with groups such as Meadow Lake Tribal Council, Agency Chiefs Tribal Council, Montreal Lake Cree Nation, Peter Ballantyne Cree Nation, and Lac La Ronge Indian Band in order to ensure Aboriginal participation and potential ownership roles in Saskatchewan's forest industry and forest-based bioenergy activities.

# 2009-10 Financial Overview

# 2009-10 Financial Overview

## Financial Report (Budgetary Expenditure)

**Appropriation and Expenditure by Subvote and Subprogram**

## Expenditures

**Summary of Expenditures**

The following table outlines information on actual and budgeted expenditures by subvote and subprogram, as per the structure for the Ministry of Energy and Resources. Variance explanations are provided for individual variances that are greater than $100,000.

*in thousands of dollars*

| Subvote/Subprogram | Actual Expenditures 2008-09 | Original (Restated)[1] Estimate 2009-10 | Actual Expenditures 2009-10 | Variance Over/ (Under) 2009-10 | |
|---|---|---|---|---|---|
| **ER01 Central Management and Services** | | | | | |
| Minister's Salary | $ 43 | $ 44 | $ 44 | $ – | |
| Executive Management | 655 | 742 | 759 | 17 | |
| Central Services | 5,481 | 16,918 | 11,759 | (5,159) | 1 |
| Accommodation Services | 3,043 | 3,274 | 3,354 | 80 | |
| Surface Rights Arbitration Board | 188 | 169 | 133 | (36) | |
| **ER01 Central Management and Services Total** | **$ 9,410** | **$ 21,147** | **$ 16,049** | **$ (5,098)** | |
| **ER18 Forestry Development Total** | **$ 1,377** | **$ 4,150** | **$ 3,152** | **$ (998)** | 2 |
| **ER04 Revenue and Program Services Total** | **$ 2,970** | **$ 3,725** | **$ 3,143** | **$ (582)** | 3 |
| **ER05 Petroleum and Natural Gas Total** | **$ 6,720** | **$ 7,618** | **$ 7,237** | **$ (381)** | 4 |
| **ER16 Exploration and Geological Services Total** | **$ 6,807** | **$ 6,398** | **$ 6,213** | **$ (185)** | 5 |
| **ER06 Resource and Energy Policy** | | | | | |
| Mineral and Energy Policy | $ 2,508 | $ 2,649 | $ 3,672 | $ 1,023 | 6 |
| Green Initiatives – Energy | 1,622 | 2,200 | 1,450 | (750) | 7 |
| Energy Sector Initiatives | 671 | 1,054 | 267 | (787) | 8 |
| Petroleum Technology Research Centre | 1,500 | 1,000 | 1,500 | 500 | 9 |
| **ER06 Resource and Energy Policy Total** | **$ 6,301** | **$ 6,903** | **$ 6,889** | **$ (14)** | |
| **Total Appropriation** | **$ 33,585** | **$ 49,941** | **$ 42,683** | **$ (7,258)** | |
| Capital Asset Acquisition | – | (11,600) | (6,375) | 5,225 | |
| Capital Asset Amortization | 4,361 | 4,201 | 4,238 | 37 | |
| **Total Expense** | **$ 37,946** | **$ 42,542** | **$ 40,546** | **$ (1,996)** | |

[1] Restated Estimates reflects the transfer of $346,000 from Central Management Service (ER01) to the Information Technology Office (ITO) – Interministerial services for mandated information technology services. The Restated Estimates for Central Services also reflect approved funding for the PRIME project.

**Variance Explanations:**

1 Deferral of Process Renewal and Infrastructure Management Enhancements (PRIME) project capital acquisitions.

2 Savings realized from deferred projects under the federal Community Development Trust funding.

3 Salary and operating savings realized from vacancy management.

4 Salary and operating savings related to expenditure restraint measures.

5 Salary and operating savings related to expenditure restraint measures.

6 Salary savings offset by $1.6 million in the province's portion of the northern uranium mines clean-up costs.

7 Savings realized from planned expenditure restraint measures.

8 Spending restraint measures and savings to offset PTRC funding allocation.

9 PTRC funding offset by funds allocated in the Energy Sector Initiatives.

## Description of Third Party Funding

| Funding Source | Amount ($ Thousands) | Description |
|---|---|---|
| Petroleum Technology Research Centre | $ 1,500 | Provides funding for core operating and research development to this industry-responsive research organization. |
| Energy Sector Initiatives | $ 267 | Provides funding to a variety of projects, including climate change initiatives (Prairie Adaptation Research Collaborative, Energy Climate Change, IEA Greenhouse Gas R&D Program). |
| Green Initiatives – Energy | $ 1,450 | Funding to support major technology development activities to reduce the environmental impact of Saskatchewan's fossil fuel industries while contributing to the industry's efficiency and economic competitiveness. |

## Summary of Revenues

The ministry collects revenues, on behalf of the government, from the production and sale of Saskatchewan's energy and mineral resources, the sale of Crown mineral rights and other associated taxes, services and fees. All revenue collected is deposited in the General Revenue Fund.

A summary of the ministry's 2009-10 budgeted revenue compared to actual revenue is presented below. Variance explanations are provided for all variances that are greater than $3 million.

The ministry's actual revenue for 2009-10 was $1.487 billion, a decrease of $1.433 billion over the 2009-10 budget estimates. The most significant reasons for this decrease are explained below.

**Summary of Revenues**
*in thousands of dollars*

| Revenue Category | 2009-10 Budget | 2009-10 Actual | Variance Over/ (Under) | |
|---|---|---|---|---|
| **Non-renewable Resource Revenue** | | | | |
| Oil | $ 573,100 | $ 1,294,670 | $ 721,570 | 1 |
| Crown Land Sales | 127,800 | 151,455 | 23,655 | 2 |
| Natural Gas | 102,200 | 40,078 | (62,122) | 3 |
| Potash | 1,926,800 | (183,887) | (2,110,687) | 4 |
| Other Minerals | 177,200 | 132,676 | (44,524) | 5 |
| **Total Non-renewable Resource Revenue** | **$ 2,907,100** | **$ 1,434,992** | **$ (1,472,108)** | |
| **Other Own-source Revenue** | | | | |
| Mineral Rights Tax | $ 8,000 | $ 8,370 | $ 370 | |
| Sales, Services and Service Fees | 5,202 | 8,695 | 3,493 | 6 |
| Interest and Penalties | 0 | 15 | 15 | |
| Other Miscellaneous Revenue | 77 | 35,000 | 34,923 | 7 |
| **Total Other Own-source Revenue** | **$ 13,279** | **$ 52,080** | **$ 38,801** | |
| **Total Revenue** | **$ 2,920,379** | **$ 1,487,072** | **$ (1,433,307)** | |

### Explanations of Major Variances

1 Oil revenues increased by $721.6 million, primarily due to the average provincial wellhead price of oil being $27.53 Canadian/bbl higher than budgeted.

2 Crown land sales revenue increased by $23.7 million due to continued industry interest in the Bakken and Shaunavon oil prospects in southern Saskatchewan and increased interest in the emerging Viking and Birdbear plays, both in west central Saskatchewan.

3 Natural gas revenues decreased by $62.1 million, primarily due to a $2.95 per gigajoule decrease in natural gas prices.

4 Potash revenues decreased by $2.111 billion, primarily in profit tax due to a $254.04 per tonne decrease in prices (24 per cent less than budget estimate) and a 6.4 million tonne reduction in sales volume.

5 Other minerals decreased by $44.5 million, primarily due to a $17.43 per kilogram decrease in the average sales price of uranium, offset by an increase in sales volume.

6 Sales, Services and Service Fees increased by $3.4 million, primarily due to an increase in sale of mineral rights for treaty land entitlement lands.

7. Other miscellaneous revenue increased by $34.9 million, due to an approximate $35 million payment from the federal government to settle a lawsuit by the provincial government related to the ownership of Soldier Settlement Board minerals.

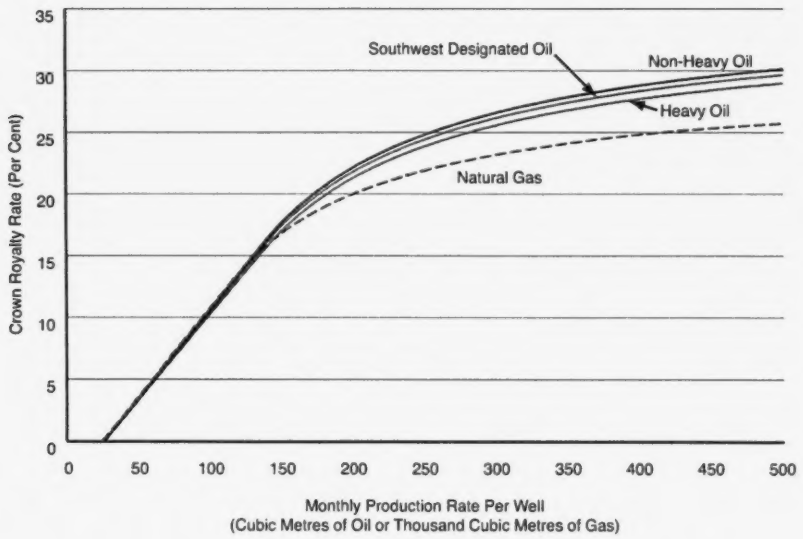
## 2009-10 Oil and Gas Tables

### New Oil and Gas Wells Drilled in 2009

| Well Category | Producing | Abandoned | Service | Total |
|---|---|---|---|---|
| **Oil** | | | | |
| Conventional | | | | |
| Vertical | 612 | 35 | 126 | 773 |
| Horizontal | 790 | 0 | 3 | 793 |
| **Total Conventional** | **1,402** | **35** | **129** | **1,566** |
| Enhanced Oil Recovery (EOR*) | | | | |
| Vertical | 23 | 0 | 0 | 23 |
| Horizontal | 21 | 0 | 0 | 21 |
| **Total EOR** | **44** | **0** | **0** | **44** |
| **Total Oil Wells** | **1,446** | **35** | **129** | **1,610** |
| **Gas** | | | | |
| Vertical | 231 | 2 | 0 | 233 |
| Horizontal | 0 | 0 | 0 | 0 |
| **Total Gas Wells** | **231** | **2** | **0** | **233** |
| **Total Oil and Gas** | **1,677** | **37** | **129** | **1,843** |

* EOR means enhanced oil recovery projects such as firefloods, steamfloods and $CO_2$ floods but excludes waterfloods.

## March 2010 Crown Royalty Curves for Wells Drilled After September 2002



## Crude Oil and Natural Gas Statistical Summary

| Crude Oil | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009[a] |
|---|---|---|---|---|---|---|---|---|---|---|
| Production (million barrels) | 152.6 | 155.7 | 153.6 | 153.1 | 154.7 | 152.9 | 156.4 | 156.2 | 161.0 | 154.8 |
| Remaining Recoverable Reserves (million barrels at December 31) | 1,165.2 | 1,167.8 | 1,155.5 | 1,161.7 | 1,196.7 | 1,188.3 | 1,179.9 | 1,175.5 | 1,156.3 | N/A |
| Value of Sales ($ millions)[1] | $5,034 | $3,693 | $4,663 | $4,757 | $5,579 | $6,617 | $7,797 | $8,276 | $13,213 | $8,858 |
| Average Well-Head Price ($ per barrel) | $33.01 | $23.70 | $30.29 | $31.08 | $36.09 | $43.31 | $49.91 | $53.02 | $82.18 | $57.29 |
| Average WTI Price ($US per barrel) | $30.26 | $25.95 | $26.15 | $30.99 | $41.47 | $56.70 | $66.25 | $72.41 | $99.75 | $62.09 |
| Employment – Direct and Indirect (person-years) | 18,600 | 19,450 | 18,450 | 20,175 | 20,450 | 22,100 | 23,925 | 24,975 | 27,375 | 25,125 |
| Capital Spending ($ millions) | $1,558.5 | $1,472.7 | $1,211.6 | $1,625.4 | $1,642.4 | $2,032.1 | $2,551.1 | $2,890.8 | $4,505.7 | $2,040.3 |
| Wells Drilled | 2,396 | 1,924 | 1,643 | 1,877 | 1,740 | 2,007 | 2,340 | 2,297 | 2,824 | 1,610 |
| Wells Capable of Producing at December 31 | 29,948 | 31,265 | 32,351 | 33,698 | 34,896 | 36,545 | 38,276 | 40,217 | 42,638 | 43,891 |
| Wells Actively Producing at December 31 | 20,373 | 20,516 | 21,398 | 22,031 | 22,737 | 23,195 | 24,154 | 25,005 | 26,149 | 25,832 |
| **Provincial Revenues ($ millions)** | **2000-01** | **2001-02** | **2002-03** | **2003-04** | **2004-05** | **2005-06** | **2006-07** | **2007-08** | **2008-09** | **2009-10** |
| Royalty/Tax Revenue | $712.8 | $477.5 | $727.7 | $590.3 | $784.2 | $952.1 | $1,119.5 | $1,218.6 | $1,583.6 | $1,161.5 |
| Other Revenue[2] | $30.6 | $24.2 | $24.5 | $24.9 | $29.8 | $31.5 | $30.0 | $27.6 | $32.5 | $26.8 |
| Oil and Gas Land Sale Revenue[3] | $55.7 | $53.6 | $110.2 | $159.2 | $93.0 | $141.4 | $169.4 | – | – | – |
| **Total Oil Revenue[4]** | **$799.0** | **$555.3** | **$862.3** | **$774.5** | **$906.9** | **$1,125.0** | **$1,318.9** | **$1,246.2** | **$1,616.1** | **$1,188.3** |

## Crude Oil and Natural Gas Statistical Summary (continued)

| Natural Gas | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009[4] |
|---|---|---|---|---|---|---|---|---|---|---|
| Production (billion cubic feet)[5] | 289.3 | 294.2 | 294.0 | 314.1 | 334.1 | 337.2 | 340.2 | 314.8 | 292.1 | 271.0 |
| Remaining Recoverable Reserves (billion cubic feet at December 31) | 2,766 | 2,663 | 2,811 | 2,765 | 2,809 | 2,833 | 2,870 | 2,754 | N/A | N/A |
| Value of Sales ($ millions)[1] | $1,128 | $1,313 | $936 | $1,580 | $1,673 | $2,139 | $1,687 | $1,469 | $1,684 | $743 |
| Average Fieldgate Price ($ per thousand cubic feet) | $4.68 | $5.43 | $3.90 | $6.17 | $6.27 | $8.10 | $6.48 | $6.25 | $7.80 | $3.87 |
| Employment – Direct and Indirect (person-years) | 2,240 | 2,600 | 3,225 | 3,825 | 3,590 | 3,565 | 3,365 | 3,100 | 3,250 | 2,225 |
| Capital Spending ($ millions) | $158.5 | $188.3 | $251.5 | $337.2 | $339.4 | $323.9 | $300.1 | $236.7 | $259.8 | $69.9 |
| Wells Drilled | 1,209 | 1,409 | 1,874 | 2,318 | 1,942 | 1,794 | 1,511 | 1,156 | 1,221 | 233 |
| Wells Capable of Producing at December 31 | 13,421 | 15,025 | 17,218 | 19,871 | 21,958 | 23,945 | 25,346 | 26,393 | 27,521 | 27,525 |
| Wells Actively Producing at December 31 | 10,498 | 12,070 | 13,706 | 15,168 | 16,601 | 17,890 | 18,692 | 19,537 | 20,328 | 20,155 |
| **Provincial Revenues ($ millions)** | **2000-01** | **2001-02** | **2002-03** | **2003-04** | **2004-05** | **2005-06** | **2006-07** | **2007-08** | **2008-09** | **2008-09** |
| Royalty/Tax Revenue | $239.3 | $129.1 | $152.7 | $210.5 | $212.4 | $269.1 | $165.1 | $133.8 | $125.9 | $39.0 |

## Crude Oil and Natural Gas Statistical Summary (continued)

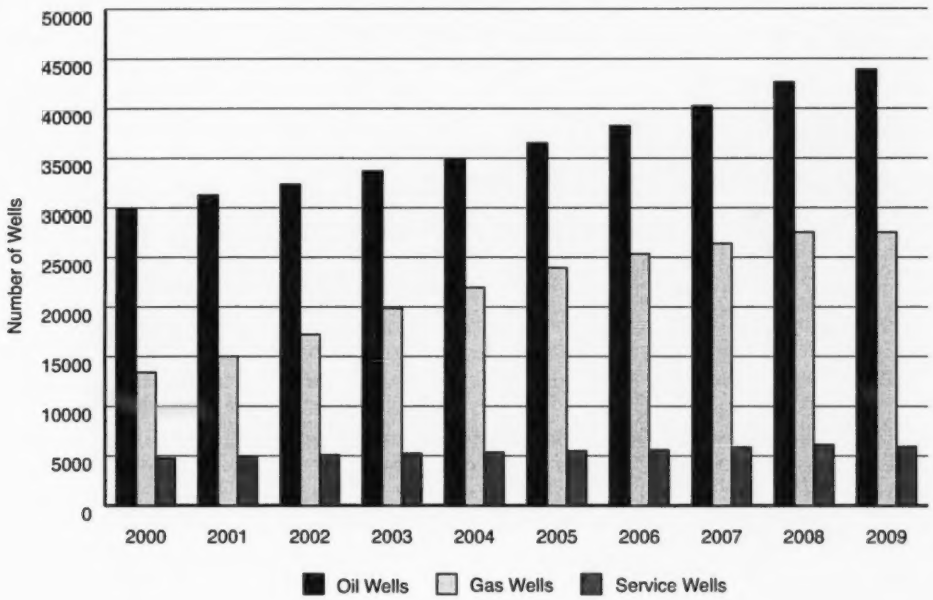
| Total Crude Oil and Natural Gas | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|---|---|---|
| Value of Sales ($ millions)[1] | $6,162 | $5,006 | $5,598 | $6,337 | $7,252 | $8,756 | $9,484 | $9,745 | $14,897 | $9,601 |
| Employment – Direct and Indirect (person-years) | 20,840 | 22,050 | 21,675 | 24,000 | 24,040 | 25,665 | 27,290 | 28,075 | 30,625 | 27,350 |
| Capital Spending ($ millions) | $1,717.0 | $1,661.0 | $1,463.1 | $1,962.6 | $1,981.8 | $2,356.0 | $2,851.2 | $3,127.5 | $4,765.5 | $2,110.2 |
| Wells Drilled | 3,605 | 3,333 | 3,517 | 4,195 | 3,682 | 3,801 | 3,851 | 3,453 | 4,045 | 1,843 |
| Wells Capable of Producing at December 31 | 43,369 | 46,290 | 49,569 | 53,569 | 56,854 | 60,490 | 63,622 | 66,610 | 70,159 | 71,416 |
| Wells Actively Producing at December 31 | 30,871 | 32,586 | 35,104 | 37,199 | 39,338 | 41,085 | 42,846 | 44,542 | 46,477 | 45,987 |
| **Provincial Revenues ($ millions)** | **2000-01** | **2001-02** | **2002-03** | **2003-04** | **2004-05** | **2005-06** | **2006-07** | **2007-08** | **2008-09** | **2009-10** |
| Royalty/Tax Revenue[4] | $952.1 | $606.6 | $880.4 | $800.8 | $996.6 | $1,221.2 | $1,284.6 | $1,352.4 | $1,709.5 | $1,200.5 |
| Other Revenue[2] | $30.6 | $24.2 | $24.5 | $24.9 | $29.8 | $31.5 | $30.0 | $27.6 | $32.5 | $26.8 |
| Oil and Gas Land Sale Revenue[3] | $55.7 | $53.6 | $110.2 | $159.2 | $93.0 | $141.4 | $169.4 | $419.1 | $928.2 | $151.4 |
| **Total Oil and Gas Revenue[4]** | **$1,038.4** | **$684.4** | **$1,015.0** | **$984.9** | **$1,119.4** | **$1,394.0** | **$1,484.0** | **$1,799.0** | **$2,670.2** | **$1,378.7** |

### Notes

1. Crude oil sales are at the well-head and natural gas sales are at the fieldgate and gas plant inlets.
2. Other revenue includes lease rentals, net royalty payments, compensatory royalties and delinquent report charges.
3. Oil and gas land sale revenue was included as part of oil revenue prior to 2007-08. Starting in 2007-08, oil and gas land sale revenue is reported as a separate line item.
4. Numbers may not add due to rounding.
5. Natural gas production includes associated and non-associated gas.
6. The 2009 and 2009-10 numbers are based on actuals where available.

N/A Not Available

## Wells Capable of Production/Injection



## 2009-10 Mineral Tables

### Crown Metallic and Industrial Mineral Dispositions

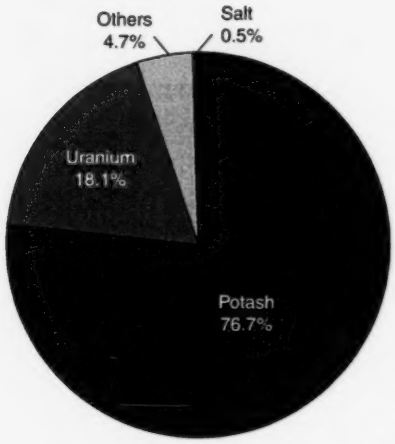
| | As of March 31st, 2008 | | As of March 31, 2009 | | As of March 31, 2010 | |
|---|---|---|---|---|---|---|
| | Number | Area (hectares) | Number | Area (hectares) | Number | Area (hectares) |
| Mineral Claims | 7,706 | 11,951,660 | 6,881 | 10,259,405 | 4,356 | 6,515,982 |
| Mineral Permits | 30 | 1,120,918 | 12 | 289,606 | 0 | 0 |
| Mineral Leases | 86 | 26,754 | 79 | 27,805 | 78 | 27,816 |
| Alkali Leases | 35 | 12,423 | 35 | 12,421 | 34 | 12,242 |
| Coal Dispositions | 777 | 118,697 | 4,546 | 2,840,959 | 6,455 | 4,068,893 |
| Quarry Dispositions | 177 | 39,593 | 378 | 66,505 | 350 | 68,671 |
| Potash Leases | 11 | 254,467 | 15 | 337,433 | 17 | 371,347 |
| Potash Permits | 87 | 2,402,685 | 176 | 4,127,833 | 167 | 3,959,749 |
| **Total** | **8,909** | **15,927,197** | **12,122** | **17,961,967** | **11,457** | **15,024,700** |
| Transfers and Change of Name | 1,113 | 4,446,679 | 756 | 3,329,191 | 1,200 | 1,833,383 |

### Saskatchewan Mineral Exploration Expenditures

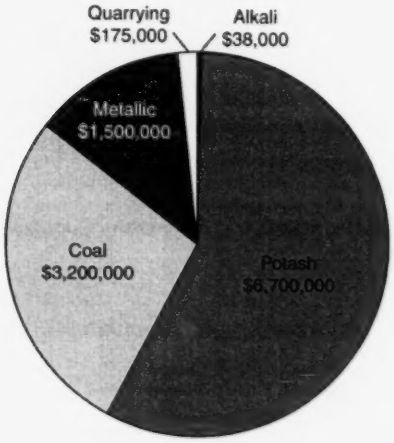
| Commodity | 2004 Actual ($ Millions) | 2005 Actual ($ Millions) | 2006 Actual ($ Millions) | 2007 Actual ($ Millions) | 2008 Actual ($ Millions) | 2009 Actual ($ Millions) | 2010 Actual ($ Millions) |
|---|---|---|---|---|---|---|---|
| Uranium | $31.24 | $74.60 | $123.70 | $199.20 | $204.44 | $108.58 | $96.49 |
| Diamonds | 22.39 | 55.44 | 98.80 | 76.58 | 73.15 | 10.85 | 15.00 |
| Gold | 5.70 | 15.33 | 13.80 | 15.30 | 8.90 | 2.97 | 10.66 |
| Base Metals | 0.93 | 2.87 | 3.90 | 11.53 | 6.76 | 1.56 | 3.58 |
| PGM | 0 | 0 | 0 | 0.02 | 0 | 0 | 0 |
| Others | 0.52 | 1.80 | 3.40 | 22.63 | 180.68 | 151.21 | 229.03 |
| **Total** | **$60.78** | **$150.04** | **$243.60** | **$325.26** | **$473.93** | **$275.17** | **$354.76** |

Data from survey conducted by Energy and Resources' Northern Geological Survey Branch (to May 2010). PGM = platinum group metals; Other = industrial minerals including potash, clays, coal and rare earth elements.

## Value of Mineral Sales 2009-10 – $5.18 Billion (estimate)




## Crown Tenure Fees 2009-10 – $11.6 Million



## Major Saskatchewan Resource Industries

### Statistical Summary – Minerals

(Millions of dollars unless otherwise noted)

| **Potash** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** |
|---|---|---|---|---|---|---|---|---|---|---|
| Production (thousand tonnes of $K_2O$) | 8,721 | 7,799 | 8,154 | 8,638 | 9,638 | 10,133 | 7,919 | 10,342 | 10,147 | 4,251 |
| Value of Sales | $1,744 | $1,622 | $1,718 | $1,632 | $2,168 | $2,697 | $2,210 | $3,056 | $7,386 | $3,067 |
| Royalty/Tax (See Note 1) | $199.3 | $179.7 | $175.1 | $120.2 | $305.5 | $278.0 | $161.7 | $348.3 | $1,364.0 | $-183.9 |
| Direct Employment | 3,035 | 3,061 | 3,044 | 3,188 | 3,196 | 3,295 | 3,375 | 3,033 | 3,838 | 3,916 |
| Capital Spending | $107 | $109 | $98 | $111 | $197 | $332 | $473 | $557 | $1,025 | $1,760 |
| **Uranium** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** |
| Production (thousand tonnes of $U_3O_8$) | 12.2 | 15.1 | 13.7 | 12.4 | 13.6 | 13.64 | 12.08 | 11.08 | 10.50 | 11.83 |
| Value of Sales | $419 | $562 | $593 | $544 | $577 | $643.8 | $629.4 | $1,106.47 | $956.2 | $1,260.4 |
| Royalty/Tax (See Note 1) | $38.7 | $22.7 | $29.2 | $14.4 | $24.5 | $29.8 | $30.1 | $70.2 | $90.1 | $104.8 |
| Direct Employment | 1,555 | 1,307 | 1,316 | 1,413 | 1,579 | 1,915 | 2,179 | 2,167 | 2,532 | 2,523 |
| Capital Spending | $49 | $48 | $33 | $49 | $119 | $293 | $253 | $331 | $310 | $359.8 |
| **Salt** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** |
| Production (thousand tonnes) | 746 | 823 | 920 | 1,005 | 1,123 | 1,124 | 1,160 | 1,166 | 1,311 | 1,255 |
| Value of Sales | $20.1 | $21.0 | $21.4 | $22.7 | $22.4 | $24.6 | $27.4 | $26.3 | $29.5 | $27.8 |
| Royalty/Tax (See Note 1) | $0.8 | $0.8 | $1.0 | $0.9 | $1.1 | $1.1 | $1.1 | $1.1 | $1.3 | $1.3 |
| Direct Employment | 178 | 164 | 180 | 182 | 179 | 179 | 207 | 163 | 142 | 150 est. |
| **Sodium Sulphate** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** |
| Production (thousand tonnes) | 245 | 160 | 185 | 171 | 134 | | | | | |
| Value of Sales | $23.0 | $22.0 | $23.0 | $20.0 | $17.2 | | | See Note 2 | | |
| Royalty/Tax (See Note 1) | $1.0 | $1.0 | $0.9 | $0.5 | $0.6 | | | | | |
| Direct Employment (number) | 104 | 60 | 56 | 56 | 50 | | | | | |
| **Other (See Note 2)** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** |
| Production (million tonnes) | 11.2 | 11.4 | 11.4 | 10.7 | 11.6 | 11.2 | 10.6 | 10.6 | 10.0 | 10.8 |
| Value of Sales | $194.8 | $203.0 | $213.0 | $214.8 | $229.4 | $256.1 | $228.7 | $189.9 | $217.0 | $237.9 |
| Royalty/Tax (See Note 1) | $14.4 | $14.5 | $22.6 | $20.0 | $23.0 | $18.2 | $17.9 | $23.2 | $30.0 | $25.3 |
| Direct Employment (number) (See Note 3) | 696 | 662 | 723 | 712 | 721 | 742 | 890 | 853 | 1,074 | n/a |
| Capital Spending | $18 | $21 | $46 | $34 | $38 | $32.8 | $85.2 | n/a | n/a | n/a |
| Exploration Expenditure (See Note 4) | $24.2 | $22.9 | $30.1 | $31.3 | $60.8 | $150.0 | $243.6 | $325.3 | $473.9 | $275 |

## Major Saskatchewan Resource Industries (continued)

### Statistical Summary – Minerals

#### Notes

Note 1

Royalty/Tax are reported for fiscal year, remaining entries are calendar year.

Note 2

Confidentiality requirements pursuant to *The Crown Minerals Act* do not permit commodity-specific information to be released where there are fewer
than three producing companies. This information is aggregated and presented in the "Other" category which includes Bentonite, Quarriable Materials, Coal, Sodium Sulphate (for 2005, 2006, 2007, 2008 and 2009) and Precious and Base Metals.

Note 3

Approximately 300 additional Saskatchewan residents are employed at the HudBay Mining Inc. in Flin Flon, Manitoba.

Note 4

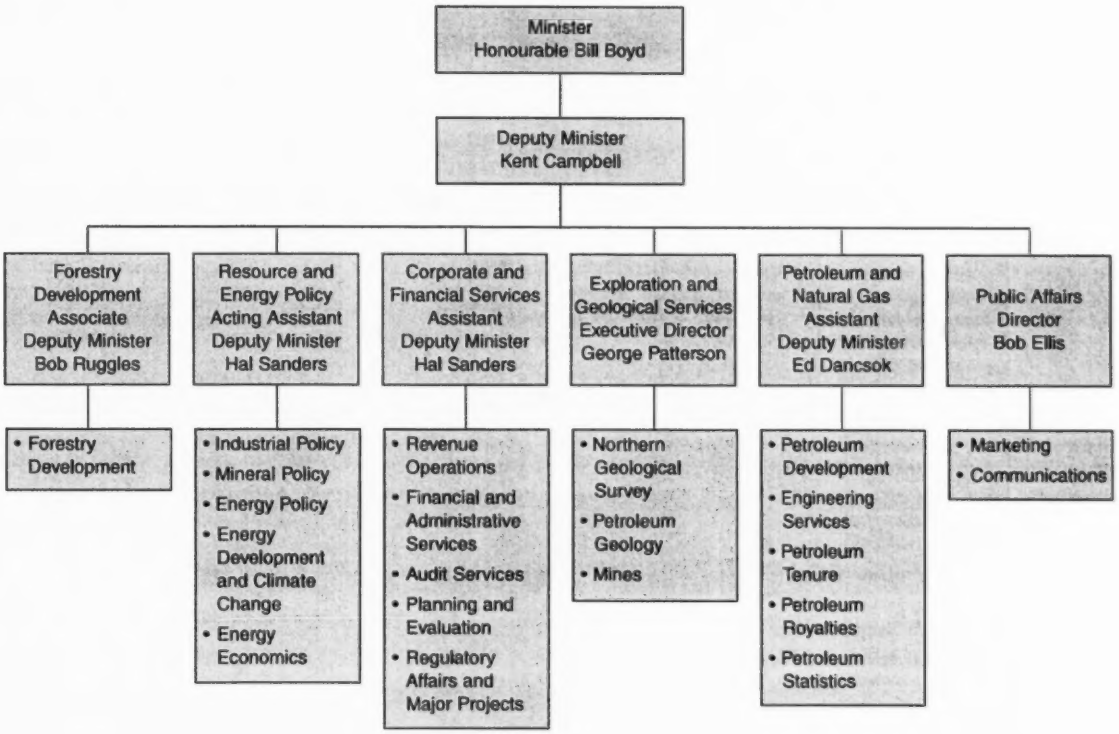
Total exploration spending for all commodities.

Non-Ministry Data Sources:

Employment information was derived from information from the Ministry of Advanced Education, Employment and Labour (annual average). Some Capital Spending figures were derived from the Natural Resources Canada Expenditure Survey.

# Appendices

## Internal Organization as of March 31, 2010


Minister
Honourable Bill Boyd
Deputy Minister
Kent Campbell
Forestry Development Associate Deputy Minister Bob Ruggles
Resource and Energy Policy Acting Assistant Deputy Minister Hal Sanders
Corporate and Financial Services Assistant Deputy Minister Hal Sanders
Exploration and Geological Services Executive Director George Patterson
Petroleum and Natural Gas Assistant Deputy Minister Ed Dancsok
Public Affairs Director Bob Ellis
• Forestry Development
• Industrial Policy
• Mineral Policy
• Energy Policy
• Energy Development and Climate Change
• Energy Economics
• Revenue Operations
• Financial and Administrative Services
• Audit Services
• Planning and Evaluation
• Regulatory Affairs and Major Projects
• Northern Geological Survey
• Petroleum Geology
• Mines
• Petroleum Development
• Engineering Services
• Petroleum Tenure
• Petroleum Royalties
• Petroleum Statistics
• Marketing
• Communications

## Legislative Responsibilities

The legislated mandate of the ministry and responsibilities of the Minister are set out in the following Acts, and regulations made pursuant to those Acts.

*The Crown Minerals Act* allows for the leasing of Crown mineral rights and provides the authority to collect royalties on Crown dispositions.

*The Energy and Mines Act* provides the Minister with the responsibility for the exploration for, and the development, management and conservation of, non-renewable resources, and the development, management and conservation of energy.

*The Freehold Oil and Gas Production Tax Act* provides the authority to tax freehold oil and gas, and recovered crude oil in the province.

*The Mineral Resources Act, 1985* provides for the orderly exploration for, and the development, conservation and management of, the primary production of mineral resources in Saskatchewan.

*The Mineral Taxation Act, 1983* provides authority to tax mineral production and mineral rights.

*The Oil and Gas Conservation Act* allows for the orderly exploration for, and the development of, oil and gas in the province and optimization of recovery of these resources.

*The Pipelines Act, 1998* provides the authority regarding the construction, operation and abandonment of oil, natural gas and other pipelines.

*The Reclaimed Industrial Sites Act* establishes the legal framework to return Crown land held under surface lease back to the province when mining and reclamation activities have been completed.

*The Surface Rights Acquisition and Compensation Act* provides the authority regarding comprehensive procedure for acquiring surface rights; for the payment of just and equitable compensation for the acquisition of surface rights; and for the maintenance and reclamation of the surface of land acquired in connection with surface rights acquired under this Act.

The Minister of Energy and Resources also has joint responsibilities for sections of several other Acts which are required for the purpose of administering certain programs and regulations.

## Publications

The Ministry of Energy and Resources distributed the following publications during the reporting year:

### Geological Reports

248A: Compilation Bedrock Geology, Tazin Lake, NTS Area 74N

### Geoscience Maps

2009-1: Geology of the Flin Flon Area, Manitoba and Saskatchewan (part of NTS 63K12-13), released in conjunction with Manitoba Science, Technology,
Energy and Mines, Manitoba Geological Survey

2010-1: Geology and Mineral Resources of the Athabasca Basin and Environs, Saskatchewan and Alberta; released in conjunction with the Energy Resources Conservation Board (Alberta), Alberta Geological Survey

### Miscellaneous Reports

2009 Weekly Drill Activity Report E-mail

2009-4.1: Summary of Investigations 2009, Volume 1 web post

2009-4.2: Summary of Investigations 2009, Volume 2 web post and map package

2009-7: Geological Atlas of Saskatchewan Version 12 CD-ROM

### Open Files

2009-1 to 23: Geophysical Series, Southern Athabasca Basin Geophysical Survey, Saskatchewan, released in conjunction with the Geological Survey of Canada

For more information on geological publications, contact:

Saskatchewan Ministry of Energy and Resources
Geological Publications
2101 Scarth Street
Regina, SK S4P 2H9

Tel: (306) 787-2528
Fax: (306) 787-2488
E-mail: er.publications@gov.sk.ca

### Other

Ministry annual reports

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Estevan, SK S4A 0S5

### Swift Current

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Swift Current, SK S9H 4G3

### Kindersley

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Kindersley, SK S0L 0S0

### Lloydminster

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### La Ronge Office

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La Ronge, SK S0J 1L0

## For More Information

This report provides information about our accomplishments. If you have any questions or comments, or would like additional copies of the report, we invite you to call (306) 787-1691.

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